

Errata for the paperback edition of The High-Latitude Ionosphere and its Effects on Radio Propagation (2007)

Preface

Chapter 1

p 51, Figure 1.21: In the right hand sketch on the bottom row, the solid line should be dashed (for ions).

Chapter 2

Chapter 3

p 113, Section 3.1, line 5: Replace "~ 30 Hz to 3 GHz" by "30 Hz to 30 GHz".

p 114, Table 3.1, item 3 (LF): Add "AM broadcasting" to the uses column.

p 122, 2 lines below equation (3.34), and p 123, Table 3.3: In both cases replace "C" by "c".

p 123, equation (3.37), and on the line below it: Replace "h' " by "h".

p 146, line before equation (3.75): Should be " $D/c \sin \phi$ ".

p 163, equation (3.116): Should read " $n_z = 1 - jX/Z = 1 - j\omega_p/(\omega v)$ ".

p 166, equation (3.119): Replace " π " by " λ ".

p 166, line below equation (3.119): Replace " C_n is +1, +2" by " $C_n = \cos \beta_n$ and $n = 1, 2, \dots$ ".

p 166: Delete second and part of third paragraphs, "In Figures 3.29 and 3.30" down to ".... denoted by $n - 1/2$ rather than n .", and insert

"The horizontal wavelength in mode $\lambda_n = \lambda/S_n$, where $S_n = \sin \beta_n$, and is given by $(1/\lambda_n)^2 = (1/\lambda)^2 = [(n-1/2)/(2h)]^2$ (3.120)

If $\lambda > 2h/(n-1/2)$, λ_n is imaginary and the mode is evanescent. For an earth- ionosphere waveguide of thickness h there is a cut-off frequency $f_n = (n-1/2)c/(2h)$ (3.121)

below which waves will not propagate in mode n . This frequency is a few kHz for the first-order mode in daytime."

p 172, 2 lines below equation (3.130): Delete ", $D = 6.9(T_e/N_e)^{1/2}$ in centimetres,"

p 172, line below equation (3.131): Replace "Where" by "where".

p 173, line 14 up from bottom: Insert "is" between "energy" and "back-scattered".

p 173, line 13 up from bottom: For "scale characterised by length that" read "a scale selected by the Bragg condition (3.132) which".

p 174, line 5: Replace "Figure 3.44" by Figure 3.36".

Chapter 4

p183, line 4: For "VLSI" read "Very Large Scale Integration (VLSI)".

p 187, Figure 4.5: Vertical scale should be labelled "Virtual height in km".

p 189, line 14: After "(k)" add "-- the Bragg condition".

p 193, caption to Figure 4.10, line 3: After "Greenwald et al" add "(1995)".

p 199, line 9: For "Section 6.4." read "Section 6.4.2".

p 206, line 3: For "VLSI" read "Very Large Scale Integration (VLSI)", and for "DSP" read "Digital Signal Processing (DSP)".

p 207, equation (4.2): Should be $A(30 \text{ MHz}) = A(f) \cdot f/(30)$.

p 209, Figure 4.22: Delete "Pole star (method A2)" from diagram. Delete "The dashed line method" from the caption.

p 219, Figure 4.26, caption line 2: For "wavenumber" read "wavelength".

Chapter 5

Chapter 6

Chapter 7

p 365, two sub headings: In each case. for "A relation" read "Relation".

Chapter 9

p 567, line 7: For “seather” read “weather”.